

AMENDMENTS TO THE DRAWINGS

One Sheet of Replacement Drawings is attached at the end of this paper in order to eliminate the Chinese characters from FIGS. 1 and 2.

No new matter has been added.

REMARKS

Claim 8 has been cancelled herein without prejudice to or disclaimer of the subject matter thereof. Claims 1-7 and 9 are pending in the present application. Claims 3-7 and 9 have been amended. Claims 1 and 3 are independent

Restriction Requirement

The Examiner has required restriction between

- Group I, claim 1 and 2, drawn to a method, and
- Group II, claim 3-9, drawn to a device.

Applicants elect with traverse, Group II, claims 3-7 and 9.

Traversal

As set forth in Section 803 of the MPEP, the Examiner must examine an application on the merits if the examination of the entire application can be made without serious burden. Two criteria are identified for a proper requirement for restriction:

1. The inventions must be independent or distinct as claimed; and
2. There must be a serious burden on the Examiner if the restriction is not required.

The Applicant respectfully submits that a serious burden has not been placed on the Examiner to consider all of the claims in a single application.

In order to be responsive to the Examiner's Restriction Requirement, claims 3-7, and 9 have been initially elected. The Examiner is respectfully requested to reconsider the Restriction Requirement and act on all of the claims in the present application. If the Examiner does persist in the restriction requirement, the right to file a divisional application directed to the non-elected claim at a later date, if desired, is reserved.

Amendments to the Specification

The Title has been amended in order to better reflect the subject matter of the claimed invention. No new matter has been added.

Arguments Regarding Independent Claim 3

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the present application, **independent claim 3** has been rewritten in independent form to recite a combination of elements directed to a device for implementing a high efficiency method scooping-up slag from liquid iron, including *inter alia*:

“two gears (11) are fixed to rear ends of two slag rakes (1) by means of two rotating shafts (3), and

wherein the two slag rakes (1) are adapted to swing toward each other in order to clamp and scoop-up the slag.”

As mentioned in the Background of the Invention (page 1 of the specification) the conventional “slag rake, which is made of refractory material, is mounted on a cantilever of the machine. By immersing the rake into the liquid iron to a certain depth and making it moving along the surface of liquid iron in linear or curved reciprocating manner, it can rake out the solid slag floating on the surface of liquid iron in the ladle gradually.”

“However, the conventional slagging-off technique and the equipment have disadvantages as follows: (1) Long time taking for the work of slagging-off and low working efficiency. Normally, it would need to reciprocate for over ten or even tens of times, which takes 5 to 10 minutes; (2) Incomplete deslagging and low deslagging rate.”

On the other hand, the Disclosure of the Invention (page 2 of the specification), discloses the following: “The two wings of slag rake mounted to the front end of cantilever makes swing movement respectively along the surface of liquid iron. When gradually moving close to each other, they get put together and clamp the solid slag. Then, driven by the cantilever, the two slag rakes move back to the vicinity of the edge of the liquid iron ladle and discharge the slag.”

“Comparing the existing slagging-off technology and equipment, the present invention has the following advantages: (1) The deslagging rate increased obviously. If the slag amount is not much, just one swing motion of the two slag rakes will rake out over 90% of the slag. And if

the slag amount is much, over 90% of slag can be raked out after two or three swing motions; (2) The speed for the process of slagging-off increased greatly. It just takes less than 3 minutes for the whole process of slagging-off.”

In view of the novel combination of elements set forth in **independent claim 3**, as amended herein, the present invention defines over the known conventional devices.

Claim for Priority

The Examiner has not recognized the Applicant's claim for foreign priority. The Examiner is respectfully requested to acknowledge Applicant's claim for priority in the next office action.

Amendments to the Drawings

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No new matter has been added.

Acknowledgement of Information Disclosure Statement

The Examiner is respectfully requested to acknowledge the Information Disclosure Statement filed on June 14, 2006. An initialed copy of the SB/08 should be sent to the undersigned at the earliest convenience of the Examiner.

CONCLUSION

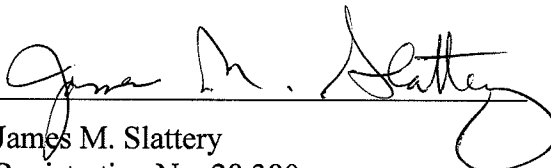
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Carl T. Thomsen Reg. No. 50,786, at 703-208-4030 (direct line) to conduct an interview in an effort to expedite prosecution in connection with the present application.

- ☒ Attached is a Petition for Extension of Time.
- ☒ Attached hereto is the fee transmittal listing the required fees.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachments: One sheet of Replacement Drawings
Fee Transmittal
Petition for Extension of Time